WEST Search History

DATE: Monday, April 21, 2003

Set Name side by side	Query	Hit Count	Set Name result set
	DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=OR		
L13	L10 and @ad<20010821	221	L13
L12	l11 and (polynucleotide or DNA or nucleic)	221	L12
L11	L10 and @ad<20010821	221	L11
L10	l7 and l8	350	L10
L9	l7 and l8L8	0	L9
L8	L5 and (protein or $5peptide or sequence) with (apoptosis or apoptotic or anti-apopto$4 or antiapopto$4)	456	L8
L7	L6 and expression adj vector	368	L7
L6	L5 and (protein or $5peptide or sequence) same (apoptosis or apoptotic or anti-apopto$4 or antiapopto$4)	506	L6
L5	L4 and (protein or $5peptide or sequence)	651	L5
L4	(heart or cardiac) with ($5apopto$5)	718	L4
L3	(PMEPA1 or PMEPA-1 or PMEPA adj 1)	0	L3
L2	(PMEPA1 or PMEPA-1 or PMEPA adj 1 or Tango adj 261) and (protein or sequence or $nulceotide)	1	L2
L1	(PMEPA1 or PMEPA-1 or PMEPA adj 1 or MIVR-1) and (protein or sequence or $nulceotide)	3	L1

END OF SEARCH HISTORY

STN Search History

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     (FILE 'HOME' ENTERED AT 16:40:59 ON 21 APR 2003)

     FILE 'MEDLINE, CAPLUS, BIOSIS' ENTERED AT 16:41:28 ON 21 APR 2003
L1            18 S (MIVR-1 OR PMEPA1 OR PMEPA-1)
L2            11 DUP REM L1 (7 DUPLICATES REMOVED)
L3             1 S L2 AND (CARDIAC OR HEART)
L4             0 S TANGO ADJ 261 (S) (PROTEIN OR  PEPTIDE OR POLYPEPTIDE) (P) (C
L5             0 S TANGO ADJ 261 (S) (PROTEIN OR  PEPTIDE OR POLYPEPTIDE)

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L4 0 TANGO ADJ 261 (S) (PROTEIN OR PEPTIDE OR POLYPEPTIDE) (P) (CARDI AC OR HEART)

L2 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2003 ACS
AN 2003:97279 CAPLUS
DN 138:132255
TI Differentially expressed gene gene and protein markers for identification, assessment, prevention, and therapy of prostate cancer
IN Schlegel, Robert; Monahan, John E.; Endege, Wilson O.; Gannavarapu, Manjula; Gorbatcheva, Bella; Hoersh, Sebastian; Kamatkar, Shubhangi; Wonsey, Angela M.; Glatt, Karen; Zhao, Xumei; Anderson, Dustin
PA Millennium Pharmaceuticals, Inc., USA
SO PCT Int. Appl., 99 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003009814	A2	20030206	WO 2002-US23913	20020725

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI US 2001-307982P P 20010725
US 2001-314356P P 20010822
US 2001-325020P P 20010925
US 2001-341746P P 20011212
US 2002-362158P P 20020305

AB The invention relates to 227 newly discovered nucleic acid mols. and their encoded proteins assocd. with prostate cancer including pre-malignant conditions. The higher than normal level of expression of any of these markers or combination of these markers correlates with the presence of prostate cancer in a patient. The markers are identified by transcription profiling using RNA derived from clin. samples which were chosen based on disease state, prognostic and diagnostic criteria; screening was performed with two custom arrays consisting of 6144 spots per membrane, including over 6000 subtracted library clones, more than 5000 IMAGE clones, and 200 control clones. Methods are provided for detecting the presence of cancer cancer in a sample, the absence of prostate cancer including pre-malignant conditions such as dysplasia in a sample, the stage of a prostate cancer, and with other characteristics of prostate cancer that are relevant to prevention, diagnosis, characterization, and therapy of prostate cancer in a patient. Methods of treating prostate cancer are also provided. Compns., kits, and methods for detecting, characterizing, preventing, and treating human prostate cancers are provided.

L2 ANSWER 2 OF 11 MEDLINE DUPLICATE 1
AN 2003053391 MEDLINE
DN 22450619 PubMed ID: 12446693
TI Elucidation of Smad requirement in transforming growth factor-beta type I receptor-induced responses.
AU Itoh Susumu; Thorikay Midory; Kowanetz Marcin; Moustakas Aristidis; Itoh Fumiko; Heldin Carl-Henrik; ten Dijke Peter
CS Division of Cellular Biochemistry, The Netherlands Cancer Institute, Plesmanlaan 121, 1066 CX Amsterdam, The Netherlands.

SO JOURNAL OF BIOLOGICAL CHEMISTRY, (2003 Feb 7) 278 (6) 3751-61.
Journal code: 2985121R. ISSN: 0021-9258.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200303
ED Entered STN: 20030204
Last Updated on STN: 20030322
Entered Medline: 20030321
AB Transforming growth factor-beta (TGF-beta) elicits cellular effects by activating specific Smad proteins that control the transcription of target genes. Whereas there is growing evidence that there are TGF-beta type I receptor-initiated intracellular pathways that are distinct from the pivotal Smad pathway, their physiological importance in TGF-beta signaling is not well understood. Therefore, we generated TGF-beta type I receptors (also termed ALK5s) with mutations in the L45 loop of the kinase domain, termed ALK5(D266A) and ALK5(3A). These mutants showed retained kinase activity but were unable to activate Smads. Characterization of their signaling properties revealed that the two L45 loop mutants did not mediate Smad-dependent transcriptional responses, TGF-beta-induced growth inhibition, and fibronectin and plasminogen activator-1 production in R4-2 mink lung epithelial cells lacking functional ALK5 protein. Mutation in the L45 loop region did not affect the binding of inhibitory Smads but did abrogate the weak binding of X-linked inhibitor of apoptosis protein and Disabled-2 to ALK5. This suggests that the L45 loop in the kinase domain is important for docking of other binding proteins. Interestingly, JNK MAP kinase activity was found to be activated by the ALK5(3A) mutant in various cell types. In addition, TGF-beta-induced inhibition of cyclin D1 expression and stimulation of **PMEPA1** (androgen-regulated prostatic mRNA) expression were found to occur, albeit weakly, in an Smad-independent manner in normal murine mammary gland cells. However, the TGF-beta-induced epithelial to mesenchymal transdifferentiation was found to require an intact L45 loop and is likely to be dependent on the Smad pathways.

L2 ANSWER 3 OF 11 MEDLINE DUPLICATE 2
AN 2003155852 IN-PROCESS
DN 22557253 PubMed ID: 12670906
TI **PMEPA1**, a transforming growth factor-beta-induced marker of terminal colonocyte differentiation whose expression is maintained in primary and metastatic colon cancer.
AU Brunschwig Elaine B; Wilson Keith; Mack David; Dawson Dawn; Lawrence Earl; Willson James K V; Lu ShiLong; Nosrati Arman; Rerko Ronald M; Swinler Sandra; Beard Lydia; Lutterbaugh James D; Willis Joseph; Platzer Petra; Markowitz Sanford
CS Howard Hughes Medical Institute and Department of Medicine, Case Western Reserve University and University Hospitals of Cleveland, Cleveland, Ohio 44106, USA.
NC P30 CA43703 (NCI)
R01 CA67409 (NCI)
R01 CA72160 (NCI)
U01 CA88130 (NCI)
SO CANCER RESEARCH, (2003 Apr 1) 63 (7) 1568-75.
Journal code: 2984705R. ISSN: 0008-5472.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS IN-PROCESS; NONINDEXED; Priority Journals
ED Entered STN: 20030404
Last Updated on STN: 20030404

AB To identify potential effectors of transforming growth factor (TGF)-beta-mediated suppression of colon cancer, we used GeneChip expression microarrays to identify TGF-beta-induced genes in VACO 330, a nontransformed TGF-beta-sensitive cell line derived from a human adenomatous colon polyp. **PMEPA1** was identified as a gene highly up-regulated by TGF-beta treatment of VACO 330. Northern blot analysis confirmed TGF-beta induction of **PMEPA1** in VACO 330, as well as a panel of three other TGF-beta-sensitive colon cell lines. **PMEPA1** induction could be detected as early as 2 h after TGF-beta treatment and was not inhibited by pretreatment of cells with cycloheximide, suggesting that **PMEPA1** is a direct target of TGF-beta signaling. Wild-type **PMEPA1** and an alternative splice variant lacking the putative transmembrane domain were encoded by the **PMEPA1** locus and were shown by epitope tagging to encode proteins with differing subcellular localization. Both variants were found to be expressed in normal colonic epithelium, and both were shown to be induced by TGF-beta. Consistent with TGF-beta playing a role in terminal differentiation of colonocytes, in situ hybridization of normal colonic epithelium localized **PMEPA1** expression to nonproliferating, terminally differentiated epithelium located at the top of colonic crypts. Intriguingly, in situ hybridization and Northern blot analysis showed that the expression of **PMEPA1** was well maintained both in colon cancer primary tumors and in colon cancer liver metastases. **PMEPA1** is thus a novel TGF-beta-induced marker of a differentiated crypt cell population. Moreover, as **PMEPA1** expression is maintained, presumptively in a TGF-beta-independent manner after malignant transformation and metastasis, it demonstrates that even late colon cancers retain a strong capacity to execute many steps of the normal colonic differentiation program.

L2 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2003 ACS
AN 2002:157821 CAPLUS
DN 136:214955
TI Genes induced in the heart by mechanical deformation with use in the therapeutic control of apoptosis in the treatment of cardiovascular disease
IN Lee, Richard T.; Landschulz, Katherine T.; Kennedy, Scott P.; Thompson, John F.; Turi, Thomas G.
PA The Brigham and Women's Hospital, Inc., USA; Pfizer, Inc.
SO PCT Int. Appl., 105 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002016416	A2	20020228	WO 2001-US26089	20010821
	WO 2002016416	A3	20030313		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2001085139	A5	20020304	AU 2001-85139	20010821
	BR 2001007157	A	20020716	BR 2001-7157	20010821
	US 2002115081	A1	20020822	US 2001-934249	20010821
PRAI	US 2000-227159P	P	20000822		
	WO 2001-US26089	W	20010821		

AB This invention pertains to methods and compns. for the diagnosis and treatment of cardiovascular conditions. More specifically, the invention relates to diagnostics and therapeutics involving isolated mols. that can be used to inhibit cardiac apoptotic cell-death. A group of genes that are induced by mech. stress of heart tissue that can inhibit apoptosis are described. Genes induced by mech. stress were identified in cardiomyocytes and vascular smooth muscle endothelial cells by RNA profiling. Cells were cultured on silicon sheets and differences in patterns of gene expression between cells cultured on sheets that were or were not mech. deformed were used to identify stress-induced transcripts. One of the transcripts identified was for a novel mech.-induced vascular receptor, **MIVR-1**, but three others were for previously assocd. with regulation of apoptosis: IEX-1, BTG-2 and TIS-11d.

L2 ANSWER 5 OF 11 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 2002:395483 BIOSIS
DN PREV200200395483
TI Biologic functions of **PMEPA1**, an androgen regulated gene with high level expression in prostate.
AU Xu, Linda L. (1); Srikantan, Vasantha; Shi, Yinghui; Sesterhenn, Isabell A.; McLeod, David G.; Moul, Judd W.; Srivastava, Shiv
CS (1) Center for Prostate Disease Research, Dept. of Surgery, USUHS, Rockville, MD USA
SO Proceedings of the American Association for Cancer Research Annual Meeting, (March, 2002) Vol. 43, pp. 619. print.
Meeting Info.: 93rd Annual Meeting of the American Association for Cancer Research San Francisco, California, USA April 06-10, 2002
ISSN: 0197-016X.
DT Conference
LA English

L2 ANSWER 6 OF 11 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 2002:443655 BIOSIS
DN PREV200200443655
TI **PMEPA1**, an androgen regulated gene, with growth inhibitory function in prostate cancer cells.
AU Xu, Linda L. (1); Srikantan, Vasantha (1); Shi, Yinghui (1); Sesterhenn, Isabell A.; McLeod, David G.; Moul, Judd W. (1); Srivastava, Shiv (1)
CS (1) Rockville, MD USA
SO Journal of Urology, (April, 2002) Vol. 167, No. 4 Supplement, pp. 55. http://www.jurology.com/. print.
Meeting Info.: Annual Meeting of the American Urology Association, Inc. Orlando, Florida, USA May 25-30, 2002
ISSN: 0022-5347.
DT Conference
LA English

L2 ANSWER 7 OF 11 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 2001:440422 BIOSIS
DN PREV200100440422
TI Identification of downstream targets of the putative tumor supressor gene on 8p by differential gene expression analysis.
AU Banerjee, Kumarika (1); Arbieva, Zarema H. (1); Usha, Lydia (1); Le, Tiffany Thao (1); Liang, Jie (1); Gomes, Ignatius (1); Westbrook, Carol A. (1)
CS (1) University of Illinois at Chicago, Chicago, IL USA
SO Proceedings of the American Association for Cancer Research Annual Meeting, (March, 2001) Vol. 42, pp. 428. print.
Meeting Info.: 92nd Annual Meeting of the American Association for Cancer Research New Orleans, LA, USA March 24-28, 2001
ISSN: 0197-016X.

DT Conference
LA English
SL English

L2 ANSWER 8 OF 11 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 2001:567350 BIOSIS
DN PREV200100567350
TI Differential gene expression in malignant breast and colon cancer cells and their suppressed counterparts.
AU Banerjee, K. (1); Arbieva, Z. H. (1); Spanknebel, K. A.; Usha, L.; Sharma, T. T. (1); Liang, J.; Gomes, I. (1); Westbrook, C. A. (1)
CS (1) Sect Hem/Onc, Dept Medicine, Univ Illinois, Chicago, Chicago, IL USA
SO American Journal of Human Genetics, (October, 2001) Vol. 69, No. 4 Supplement, pp. 271. print.
Meeting Info.: 51st Annual Meeting of the American Society of Human Genetics San Diego, California, USA October 12-16, 2001
ISSN: 0002-9297.
DT Conference
LA English
SL English

L2 ANSWER 9 OF 11 MEDLINE DUPLICATE 3
AN 2001522400 MEDLINE
DN 21453682 PubMed ID: 11568975
TI Characterization of a novel gene, STAG1/**PMEPA1**, upregulated in renal cell carcinoma and other solid tumors.
AU Rae F K; Hooper J D; Nicol D L; Clements J A
CS Centre for Molecular Biotechnology, School of Life Sciences, Queensland University of Technology, Brisbane, Australia.
SO MOLECULAR CARCINOGENESIS, (2001 Sep) 32 (1) 44-53.
Journal code: 8811105. ISSN: 0899-1987.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
OS GENBANK-AF305426; GENBANK-AF305616
EM 200112
ED Entered STN: 20010925
Last Updated on STN: 20020122
Entered Medline: 20011205
AB Using differential display-polymerase chain reaction, we identified a novel gene sequence, designated solid tumor-associated gene 1 (STAG1), that is upregulated in renal cell carcinoma (RCC). The full-length cDNA (4839 bp) encompassed the recently reported androgen-regulated prostatic cDNA **PMEPA1**, and so we refer to this gene as STAG1/**PMEPA1**. Two STAG1/**PMEPA1** mRNA transcripts of approximately 2.7 and 5 kb, with identical coding regions but variant 3' untranslated regions, were predominantly expressed in normal prostate tissue and at lower levels in the ovary. The expression of this gene was upregulated in 87% of RCC samples and also was upregulated in stomach and rectal adenocarcinomas. In contrast, STAG1/**PMEPA1** expression was barely detectable in leukemia and lymphoma samples. Analysis of expressed sequence tag databases showed that STAG1/**PMEPA1** also was expressed in pancreatic, endometrial, and prostatic adenocarcinomas. The STAG1/**PMEPA1** cDNA encodes a 287-amino-acid protein containing a putative transmembrane domain and motifs that suggest that it may bind src homology 3- and tryptophan tryptophan domain-containing proteins. This protein shows 67% identity to the protein encoded by the chromosome 18 open reading frame 1 gene. Translation of STAG1/**PMEPA1** mRNA in vitro showed two products of 36 and 39 kDa, respectively, suggesting that translation may initiate at more than one

site. Comparison to genomic clones showed that STAG1/**PMEPA1** was located on chromosome 20q13 between microsatellite markers D20S183 and D20S173 and spanned four exons and three introns. The upregulation of this gene in several solid tumors indicated that it may play an important role in tumorigenesis.Copyright 2001 Wiley-Liss, Inc.

L2 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2003 ACS
AN 2001:32801 CAPLUS
DN 137:89133
TI A novel androgen-regulated gene, **PMEPA1**, located on chromosome 20q13 exhibits high level expression in prostate. [Erratum to document cited in CA133:345300]
AU Xu, Linda L.; Shanmugam, Naga; Segawa, Takehiko; Sesterhenn, Isabell A.; McLeod, David G.; Moul, Judd M.; Srivastava, Shiv
CS Center for Prostate Disease Research, Department of Surgery, Uniformed Services University of Health Sciences, Bethesda, MD, 20814-4799, USA
SO Genomics (2000), 70(3), 407
CODEN: GNMCEP; ISSN: 0888-7543
PB Academic Press
DT Journal
LA English
AB On pages 259, 260, 261, and 262, Figs. 1B, 2, 4B, and 5 contain incorrect labels. All labels contg. "PAIR1" should be "**PMEPA1**". The figure legends are correct as printed. (c) 2000 Academic Press.

L2 ANSWER 11 OF 11 MEDLINE DUPLICATE 4
AN 2000427916 MEDLINE
DN 20334621 PubMed ID: 10873380
TI A novel androgen-regulated gene, **PMEPA1**, located on chromosome 20q13 exhibits high level expression in prostate.
CM Erratum in: Genomics 2000 Dec 15;70(3):407
AU Xu L L; Shanmugam N; Segawa T; Sesterhenn I A; McLeod D G; Moul J W; Srivastava S
CS Center for Prostate Disease Research, Uniformed Services University of the Health Sciences, Bethesda, Maryland, 20814-4799, USA.
SO GENOMICS, (2000 Jun 15) 66 (3) 257-63.
Journal code: 8800135. ISSN: 0888-7543.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
OS GENBANK-AF224278
EM 200009
ED Entered STN: 20000922
Last Updated on STN: 20010716
Entered Medline: 20000911
AB Biologic effects of androgen on target cells are mediated in part by transcriptional regulation of androgen-regulated genes (ARGs) by androgen receptor. Using serial analysis of gene expression (SAGE), we have identified a comprehensive repertoire of ARGs in LNCaP cells. One of the SAGE-derived tags exhibiting homology to an expressed sequence tag was maximally induced in response to synthetic androgen R1881 treatment. The open reading frame of the androgen-induced RNA (**PMEPA1**) was characterized as a 759-bp nucleotide sequence coding for a 252-amino-acid protein. The analysis of **PMEPA1** protein sequence indicated the existence of a type Ib transmembrane domain between residues 9 and 25. Analysis of multiple-tissue Northern blots revealed the highest level of **PMEPA1** expression in prostate tissue. **PMEPA1** expression was predominately detected in glandular epithelial cells of prostate by in situ hybridization analysis. The expression of **PMEPA1** in LNCaP cells was induced by androgen in a time- and dose-specific manner.

Evaluation of **PMEPA1** expression in androgen-dependent/independent tumors of the CWR22 xenograft model revealed that **PMEPA1** was overexpressed in three of four androgen-independent tumor tissues. These observations define **PMEPA1** as a novel androgen-regulated gene exhibiting abundant expression in prostate tissue. The increased expression of **PMEPA1** in relapsed tumors of the CWR22 model suggests activation of androgen signaling in hormone refractory disease. **PMEPA1**, along with other highly androgen-induced prostate-specific genes, has potential to serve as an androgen signaling read-out biomarker in prostate tissue.

L3 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS

TI Genes induced in the **heart** by mechanical deformation with use in the therapeutic control of apoptosis in the treatment of cardiovascular disease

IN Lee, Richard T.; Landschulz, Katherine T.; Kennedy, Scott P.; Thompson, John F.; Turi, Thomas G.

SO PCT Int. Appl., 105 pp.
CODEN: PIXXD2